



CHAPTER ONE



NAME OF PROJECT

(Tram Station of New Khartoum Airport)

Definition & Nature of project

It is the design of a local transport station Khartoum, near the new Khartoum International Airport is a main station within the transport network through the tram and includes the equipment of the station and the basic services required to serve the users of the station.

It is a service project primarily providing tram services for passengers from Khartoum State to Khartoum International Airport.



Project Level Of Service

(Local level) The project targets the residents of the Triangle capital (Khartoum - Bahri - Omdurman).



Important & Needs of the project

Traffic congestion, traffic signs and even some major roads have increased in recent times and the state has begun to pay attention to the railway sector (the Khartoum tram project), but the problem is the weakness of services in stations for users and for trams in terms of maintenance and other services.

-Functionally

Processing expected congestion and relieve pressure on internal streets.
Provide a link between the new airport and the city because of the distance

-Tourism

Open the door for tourists to know the archaeological areas, civilizations and beautiful areas in Sudan.

-Socially

The architectural character that suits the customs, traditions and needs of the community, where the customs, traditions and legacies affect planning and design.
The train stations are also projects that reflect the state's societies.

-Economically

The physical return of the state.

Develop the new airport area and make it a commercial and tourist area.

-Construction

The building is one of the buildings that needs large swaths, thus producing new forms of buildings with different concepts for large buildings.

- Aesthetically

Create an aesthetic interface for the new airport area.

Project Goals

- 1- Development of public transport within the city of Khartoum.
- 2 - Provide employment opportunities for citizens in this project and requires the company executing the project training before employment.
3. Such a project will attract foreign investment.
- 4 - Provide access to the citizen in record time.
- 5 - Mitigating many accidents and pressure on internal roads and thus reduce maintenance, which saves large amounts on the state.
- 6 - Eliminate a large percentage of audio and air pollution as it will reduce the use of cars because the majority of citizens would prefer to ride trains for quick access.
- 7 - Trams are useful from the security point of view because of the small number of accidents.
- 8 - Assistance in facilitating the movement of travelers and arrivals from abroad.

Project Challenges

-Socially:

Customs, traditions and urban inheritance affect the planning, design and architectural design of the project.

-Economically:

The possibility of operation and maintenance of the building is shown after its operation, and the process of construction and the material return of the project

-Functional:

Handling congestion and solving the problem of crossing passengers by rail.

Introducing modern motion technology to reduce movement time.

-Aesthetically:

Making the building a landmark of the city and a magnet for tourists.

-Structural:

solving the Structural long spans that will fit with the path of the tram and tackling the problem cause by travelers crossing track (Skelton of the building + Roofing + Spans + construction foundation + New materials + Etc.)

-Environmental:

The Climate, Topography & All the environmental factors were put in considered in the design process.



Trageted Population

Travels between Khartoum International Airport, Khartoum State and neighboring areas (Travels and depositors and receivers) 2682431 people

The Owner of the project

Government of Sudan (Ministry of transportation) or an Investment company (National / International).

Donors of the project

Government of Sudan (Ministry of transportation) or an Investment company (National / International).

